

REPORT OF THE CURATORS.

The plans outlined in the Curators' report for 1909 for alterations in the exterior of the building, made possible by the appropriation of \$60,000 by the Commonwealth of Pennsylvania at the last session of the Legislature, have been successfully carried out.

The walls of the original green-stone building have been encased in granite, brick and terra cotta, which effectually checks any further deterioration and makes this wing uniform in appearance with the new library wing on Cherry Street. Granite and terra cotta facings have also been added to the middle brick building to bring it into harmony with the other two. A number of the windows have been altered with the object of furnishing additional light and conforming to the general architectural design, while new doorways have been constructed at the entrances on Race and Nineteenth Streets.

The results of the alterations are very satisfactory, making one harmonious building of the several wings that have been erected at different periods since the Academy first occupied its present site.

A slight alteration was made during the year in the library building, by which two office rooms on the gallery were thrown together, making a commodious Council room, to which the bookcases and other furnishings of the old Council room have been transferred. Additional radiators were erected in the herbarium, and two laboratory tables and a number of rugs were purchased for the work-rooms and offices of the scientific staff.

The building operations which were in progress during the greater part of the year naturally interfered with any extensive rearrangement of the exhibits. The north wing had to be closed entirely for several months and the cleansing and replacing of the cases have only just been completed.

In the middle wing the entire exhibition series of Mammals has been removed from the cases, the floors of which were then repainted and the specimens, after being carefully cleansed, were replaced.

The skeleton of the Indian Elephant "Bolivar" was articulated and placed beside the mounted skin, while several other large skeletons were remounted.

On the bird gallery the labelling of the exhibition collection was practically completed.

In addition to the work on the Mammals and Osteological collection, Mr. McCadden, the taxidermist, has prepared a number of skins and skeletons for the study collection, including the skeleton of a Lesser Sperm Whale.

A large amount of research and routine work has been done by members of the staff in connection with the study collections as outlined in the accompanying special reports.

Beside this, Dr. J. P. Moore has cared for the collection of annelids and has studied and described the extensive collections dredged in the North Pacific by expeditions representing the U. S. Bureau of Fisheries, Leland Stanford University, and the University of California, from which the Academy receives duplicates. Numerous other specimens of worms submitted by institutions and individuals have been identified.

Mr. H. W. Fowler has cared for the collection of fishes and, beside routine work, has critically studied and reidentified the batoid, chimæroid and ganoid fishes and part of the clupeoids, preparing seven papers for the Academy's PROCEEDINGS.

Mr. J. A. G. Rehn, in the portion of his time devoted to Entomology, has studied the North Carolina Orthoptera in the Academy collection and that of Mr. Morgan Hebard and prepared a paper on the subject for the PROCEEDINGS, as well as on the collection of Georgia and Florida Orthoptera submitted by the Georgia State Entomologist, from which the Academy received duplicates. He has likewise published a revision of the genus *Ischnoptera*.

Miss H. N. Wardle has continued the cataloguing of the Archaeological collection.

The Curators are also indebted to Mr. E. T. Cresson, Jr., for aid in the entomological department, and to Messrs. S. S. Van Pelt and Bayard Long for voluntary work in mounting and caring for the local collection of plants.

A number of important field trips were taken during the year in the interest of the Academy. Dr. H. A. Pilsbry spent several months in Arizona making collections of Mollusks, Reptiles and Plants. Mr. Vanatta spent some weeks in Bermuda, and Dr. Moore was at Martha's Vineyard during the summer, both of them obtaining interesting invertebrate material, while Mr. Stewardson Brown, during a month's sojourn in Jamaica, secured a valuable series of the plants of the island.

Through the liberality of Mr. Morgan Hebard, Mr. Rehn was enabled to join him on another tour of the Western States in search of Orthoptera and a large collection was made in which the Academy shares. Numerous local collecting trips were also taken by members of the staff.

Among the important accessions of the year may be mentioned the valuable unique specimens obtained by Mr. Clarence B. Moore during

his continued investigations among the Indian mounds of the southern United States, for the accommodation of which Mr. Moore has presented another mahogany and plate-glass exhibition case.

Dr. Amos P. Brown has presented an extensive series of mollusks obtained by him during several trips to Jamaica during the year, and Mr. Joseph Crawford, who accompanied him on one trip, has presented a collection of Jamaican plants.

The H. H. Smith 1905-09 collections of fresh-water mollusks of Alabama were obtained by purchase, and a collection of birds from Chihuahua, Mexico, was presented by Dr. William E. Hughes. A number of mammals were also received from the Zoological Society of Philadelphia.

Thirty-one storage cases and two hundred insect boxes were procured during the year.

There has been a good attendance of visitors to the Museum, especially on Sunday afternoons, and a marked increase is noticeable in the number of school classes which have visited the institution under the charge of their teachers.

A number of visiting specialists have made use of the study collections during the year in the various departments of the Museum, and specimens have been loaned to the following: W. W. Eggleston, L. W. Riddle, Bayard Long, Ivar Arvidson, W. E. Clyde Todd, Robert Ridgway, P. Wytzman, C. H. Eigenmann, D. G. Elliot and J. C. Merriam.

SAMUEL G. DIXON,
HENRY A. PILSBRY,
WITMER STONE,
Curators.

REPORT OF THE DEPARTMENT OF MOLLUSCA.

During the past year continued progress has been made in the arrangement of the study collections of mollusks. About half of the alcoholic series has been overhauled and classified in the new storage cases. No work has been done on the display collection owing to building operations.

Over 4,000 lots have been added to the collection, the number of individual specimens being estimated at over 25,000. Among the more interesting gifts to the collection the following may be mentioned: series of Jamaican and Panamic land snails collected by Dr. Amos P. Brown; South American shells sent by Dr. H. von Ihering of the Museu Paulista, Brazil, and a series from the Kaibab and Kanab

plateaus, Arizona, collected by Messrs. J. H. Ferriss and L. E. Daniels in 1909. Mr. Clarence B. Moore and Mr. Y. Hirase have continued to contribute valuable material.

Through illness the Department was deprived of the services of Mr. Vanatta during six months of the year, but he took advantage of the period of convalescence to collect an extensive and valuable series of the mollusks of Bermuda. Mr. Vanatta has demonstrated that Bermuda has a fresh-water fauna containing no less than five genera of mollusks. Hitherto it has been supposed that no native fresh-water mollusks existed there.

Work on the MANUAL OF CONCHOLOGY has been directed to the Hawaiian family *Achatinellide*.

Papers have been published by the Special Curator during the year on the mollusks of Mexico; of the Chiricahua Mountains, Arizona; on land mollusks of Panama, and of Jamaica (in collaboration with Dr. Brown); on Haitian Oligocene fossils, etc. Mr. Vanatta has prepared a paper on the mollusks of Bermuda for publication in the PROCEEDINGS.

The Special Curator spent three months, beginning August 15th, in the exploration of southern New Mexico and Arizona, in company with Messrs. Ferriss and Daniels. The Hachita Grande, Santa Rita, Baboquivari, Dragoon and other mountain ranges were studied. It is believed that the observations made will add materially to our knowledge of the zoogeography of the arid southwest. The collections are also interesting systematically, since a large number of species new to science was encountered.

HENRY A. PILSBRY,
Special Curator.

REPORTS OF THE SECTIONS.

BIOLOGICAL AND MICROSCOPICAL SECTION.

Nine regular and eight informal meetings have been held during the year, with the usual attendance. The membership is the same in number as last year, one resignation having occurred and one new member being admitted. In accordance with custom, the proceedings at the meetings have consisted chiefly of oral communications, in which each member present has shared, of microscopical studies, many of which have represented original work. It is to be regretted that